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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,551	03/09/2001	Clive M. Philbrick	ALA-012	8657
24501	7590	11/16/2005	EXAMINER	
MARK A LAUER 6601 KOLL CENTER PARKWAY SUITE 245 PLEASANTON, CA 94566			CHANG, JUNGWON	
			ART UNIT	PAPER NUMBER
			2154	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,551

Applicant(s)

PHILBRICK ET AL.

Examiner

Jungwon Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 8/26/2005, PROSECUTION IS HEREBY REOPENED. New grounds of rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



John Follansbee

2. Claims 1-18, 21 and 22 are presented for examination.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. **Claims** 1-18, 21 and 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,807,581 (hereinafter '581). Although the conflicting claims are not identical, they are not patentably distinct from each other because both apparatuses for transferring information between a network and a storage unit comprise substantially the same element. The difference between 581 application and the present application are the claimed transport layer and User Datagram Protocol. It would have been obvious to ordinary skill in the art that the User Datagram Protocol is known as a transport layer protocol. Changing the name will not serve as a basis for patentability. Therefore, they are not patentably distinct from each other.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1, 3-10, 12 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 5,913,028) (hereinafter Wang) in view of Gentry (US 5,848,293) and further in view of Willis et al. (US 6,385,647), hereinafter Willis.

7. As for claims 1 and 21, Wang discloses an apparatus for transferring information between a network and a storage device, the apparatus comprising:

a host computer having a CPU (CPU 24, Fig. 2) operating a file system (file system 27, direct file system 28, and peer I/O manager 26, Fig. 3) and a host memory (memory 32, Fig. 2) connected to said CPU by a host bus (Figs. 2 and 3), and

an interface device (40, Fig. 2) coupled to said host computer, to the network and to the storage device, said interface device including an interface memory (local memory 44, Fig. 3) adapted to store data that is communicated between the network and the storage device under control of said file system (Network I/O Device, Fig. 3; col. 3, lines 31-52; col. 4, line 50 – col. 5, line 5; col. 6, line 66 – col. 7, line 7; col. 8, lines 1-11; uses low level file system primitives such as the NetWare Direct File System 28 to issue direct read requests to the Storage I/O Device 40, so that data transfers are accomplished),

wherein said host computer is configured to designate a *socket* that is accessible

by said interface device, and said interface device is configured to communicate said data between the network and the interface memory according to said *socket* (Fig. 3; col. 4, line 38 – col. 5, line 5; col. 11, lines 1-11).

8. Wang discloses network device including an interface memory (local memory; Fig. 3; 44, Fig. 5). However, Wang does not specifically disclose the interface memory contains an interface file cache. Gentry discloses the interface memory contains an interface file cache (Figs. 3, 6; col. 1, lines 39-67; col. 2, lines 38-57; col. 6, line 42 – col. 7, line 12; col. 7, line 40 – col. 8, line 50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wang and Gentry because Gentry's interface file cache would operate fast to transfer data between host computer and the other computers in the network (Gentry, col. 4, lines 19-36).

Wang does not explicitly teach that the socket may be User Datagram Protocol (UDP) socket. Willis teaches UDP socket (UDP socket 5A30, fig. 5; UDP socket 6A20, fig. 6; col. 14, lines 12-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wang and Willis because using the Willis' UDP socket would efficiently transmit data packet to intended destination.

9. As for claim 3, Wang does not explicitly disclose the use of Realtime Transport

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Protocol (RTP) headers. Willis teaches creating RTP headers and prepending the header to the data for transmission over the network (col. 11, lines 2-22). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Wang and Willis because Willis' RTP protocol would improve quality of service by supporting the transmission and reception of real-time multimedia (Willis, col. 2, lines 26-36).

10. As for claims 4, 5 and 6, Wang discloses a packet is comprised of headers (col. 10, lines 18-65). However, Wang does not explicitly disclose the use of UDP headers. Willis teaches that UDP, by definition, prepends data with UDP headers, wherein the data is further divided into plural fragments which are concatenated corresponding to the UDP header (col. 10, line 40 – col. 11, line 22; col. 14, lines 12-67; col. 15, lines 34-46). It would have been obvious to one of ordinary skill in the art to modify Wang by using UDP headers and dividing the data into plural fragments, in order to efficiently transfer data over a network, as taught by Willis above.

11. As for claim 7, Wang teaches the apparatus of claim 1, wherein said data does not enter said host computer (col. 3, lines 31-52; bypassing; col. 17, lines 58-63).

12. As for claim 8, Wang does not explicitly teach that the data may comprise audio. Willis teaches the transfer of audio data over a network (col. 1, line 62 – col. 2, line 8; col. 2, lines 48-67). It would have been obvious to one of ordinary skill in the art at the

time of the invention to modify Wang by transferring audio data in order to make this data accessible over a network.

13. As for claim 9, Wang discloses a video data (col. 9, lines 9-17).

14. As for claim 10, Wang teaches the apparatus of claim 1, wherein said data is a part of a realtime communication (col. 3, lines 31-52).

15. As for claim 12, Wang discloses network device including an interface memory (local memory; Fig. 3; 44, Fig. 5). However, Wang does not specifically disclose the interface memory contains an interface file cache. Gentry discloses the interface memory contains an interface file cache (Figs. 3, 6; col. 1, lines 39-67; col. 2, lines 38-57; col. 6, line 42 – col. 7, line 12; col. 7, line 40 – col. 8, line 50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wang and Gentry because Gentry's interface file cache would operate fast to transfer data between host computer and the other computers in the network (Gentry, col. 4, lines 19-36).

16. **Claims 11 and 13-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 5,913,028) (hereinafter Wang) in view of Willis et al. (US 6,385,647), hereinafter Willis.

17. As for claim 11, it is rejected for the same reasons set forth in claim 1 above. In addition, Wang discloses a host computer having a processor (CPU 24, Fig. 2) connected to a host memory (memory 32, Fig. 2) by a host memory bus (connection illustrated in Fig. 2), said host memory containing an application operable by the processor to designate *a socket* (col. 4, line 38 – col. 5, line 5; Fig. 3), and

an interface device (network I/O device 40, Fig. 2) connected to said host computer and coupled between the network and the peripheral device, said interface device including an interface memory adapted to store data corresponding to *said socket* and a mechanism configured to associate said data with *a header* corresponding to *said socket* such that said data is communicated between the network and the peripheral device without encountering said host computer (col. 4, line 38 – col. 5, line 5; Fig. 3; bypassing, col. 17, lines 58-63).

18. As for claims 13 and 14, Wang does not explicitly disclose the use of UDP packets and headers. Stevens teaches that UDP, by definition, includes UDP packets and headers, wherein said data travels over the network in plural fragments (packets) corresponding to the header. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wang by using UDP packets and headers, wherein the interface device processes the headers and concatenates the data, because these are well-known and necessary steps in order to efficiently transfer data over a network, as taught by Willis above.

19. As for claim 15, Wang does not specifically disclose the use of Realtime Transport Protocol (RTP). Willis teaches creating RTP headers and prepending the header to the data for transmission over the network (col. 11, lines 2-22). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Wang and Willis because Willis' RTP protocol would improve quality of service by supporting the transmission and reception of real-time multimedia (Willis, col. 2, lines 26-36).

20. As for claim 16, Wang does not explicitly teach that the data may comprise audio. Willis teaches the transfer of audio data over a network (col. 1, line 62 – col. 2, line 8; col. 2, lines 48-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wang by transferring audio data in order to make this data accessible over a network.

21. As for claim 17, Wang discloses a video data (col. 9, lines 9-17).

22. As for claim 18, Wang teaches the apparatus of claim 11, wherein said data is a part of a realtime communication over the network (col. 3, lines 31-52).

23. **Claims 2 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Gentry, Willis, and further in view of Applicant's admitted prior art (pg. 31, line 28 – pg. 32, line 8) (hereinafter AAPA).

24. As for claims 2 and 22, Wang explicitly teaches the use of application layer headers, which inherently includes prepending these headers to the data (col. 11, lines 14-36), because otherwise the data packets could not be transferred. It is not clear from Wang whether or not these application layer headers are created by the host computer or the interface device. Thus, Wang, Gentry and Willis do not specifically disclose that the host computer is configured to create the application layer header that is accessible by said interface device. However, AAPA (pg. 31, line 28 – pg. 32, line 8) teaches that it is conventionally known to generate an application packet header at a host computer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Wang Gentry and Willis by configuring the host computer to create an application layer header that is accessible by said interface device in order to transmit application data over the network. Moreover, it would have been obvious to generate the application headers at the host computer of Wang, because the application resides on the host computer and this would simplify data processing.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Craft et al, patent 6,697,868, Craft et al, patent 6,941,386, Gotesman et al, patent 6,097,734 disclose an interface device for a host is disclosed that provides hardware


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and processing mechanisms for accelerating data transfers between a network and a storage unit.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is (571) 272-3960. The examiner can normally be reached on 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jungwon Chang
November 12, 2005